

IN THE SPECIFICATION

Please amend Page 9, Line 19 to Page 10, Line 5 as follows:

RF transceiver 100 comprises antenna 101, timer 105, battery 110, radio frequency (RF) modem section 120, and baseband section 150. RF modem section 120 comprises transmit path circuitry 122, receive path circuitry 124, signal acquisition block 126, memory 128, paging mode controller 132, and power switch 134. Memory 128 may be, for example, a non-volatile memory, such as a low-power flash RAM that stores RF communication parameter data, such as frequency hopping (FH) data parameters 129, used by RF transceiver 100 to transmit data to receive data. Baseband section 150 comprises RF modem controller 152, baseband processing circuitry 154, idle detection circuit 156, and power switch 158.

Please amend Page 10, Lines 6-18 as follows:

During normal operation, power switch 134 and power switch 158 are closed (ON) and supply voltage power from battery 110 is applied to the components of RF modem section 120 and baseband section ~~[[152]]~~ 150, thereby enabling RF transceiver 100 to send and receive data. However, as will be described below in greater detail, power switches 134 and 158 may be selectively opened (OFF) when RF transceiver 100 is not transmitting data to, or receiving data from, a remote base station or a wireless network. When power switches 134 and 158 are opened, the power supply voltage is cut off to the components of RF modem section 120 and baseband section 150, thereby greatly reducing power consumption in RF transceiver 100. When switches 134 and 158 are both open, only timer 105 continues to consume power.

Please amend Page 10, Line 19 to Page 11, Line 6 as follows:

Receive path circuitry 124 and signal acquisition block 126 in RF modem section [[124]] 120 convert incoming RF signals from antenna 101 down to a baseband bit stream. Receive path circuitry 124 typically comprises signal amplifiers, down-conversion mixers, and demodulation circuitry. Signal acquisition block 126 receives the baseband bit stream and performs simile comparison operations to determine if the received data bits match a known pattern or address indicating that RF transceiver 100 is receiving a data transmission form an external transmitter. The receive path components are usually implemented with application specific integrated circuit (ASIC) chips, such as low noise amplifier (LNA) chips, filters, frequency discriminators, bit slices, and the like.

Please amend Page 11, Line 16, to Page 12, Line 2 as follows:

Transmit path circuitry 122 receives outgoing baseband bit streams from baseband processing circuitry and converts it to an outgoing RF signal that is transmitted via antenna 101 to, for example, a base station in a cellular network. Transmit path circuitry 122 typically comprises modulation and encoding circuitry, up-conversion mixers, and RF power amplifiers. If RF transceiver [[101]] 100 is idle (i.e., not actively transmitting and receiving data) paging mode controller 130 may generate intermittent paging messages (i.e., beacon signals) that are transmitted by transmit path circuitry 122 in order to notify the external wireless network that RF transceiver 100 is still active in the network.

Please amend Page 13, Line 13, to Page 14, Line 2 as follows:

In a second low-power mode, low power modem controller 132 again opens power switch 158, turning off baseband section 150, but also selectively ~~[[turn]]~~ turning off power to the transmission circuitry in RF modem section 120. In particular, RF modem section 120 may close embedded power switches (not shown) that cut off power to transmit path circuitry 122 and paging mode controller 130. This mode saves even more power, but still permits receive path circuitry 124 and signal acquisition block 126 to continually monitor for incoming RF signals directed to RF transceiver 100. If an incoming RF signal directed to RF transceiver 100 is detected, signal acquisition block 126 sends a notification signal to low power mode controller 132, which responds by reapplying power to the transmitter portion of RF modem section 120 and by closing power switch 158, thereby reapplying power to baseband section ~~[[158]]~~ 150.

Please amend Page 14, Lines 11-21 as follows:

Thereafter, timer 105 cycles power switch 134 on and off according to predefined parameters established for RF transceiver 100. The on periods are sufficiently long so that receive path circuitry 124 and signal acquisition block ~~[[128]]~~ 126 can detect an incoming RF signal directed to RF transceiver 100. If such an incoming signal is detected, signal acquisition block 126 sends a notification signal to timer 105, which stops cycling power and simply leaves power switch 134 closed. This reapplies power to the transmitter and receiver portions of RF modem section 120. Lower power mode controller 132 then closes power switch 158, which reapplies power to baseband section 150.

Please amend Page 15, Lines 2-11 as follows:

FIGURE 2 depicts flow diagram 200, which illustrates the low power mode operation of RF transceiver 100 according to an exemplary embodiment of the present invention. During routine operations, RF modem controller 152 stores RF parameter data in memory 128 (process step 205). After a period of idleness in baseband processing circuitry 154, low power mode controller 132 shuts off power to baseband section ~~[[158]]~~ 150 (process step 210). Low power mode controller ~~[[32]]~~ 132 then sets timer 105, which uses switch 134 to cycle power on and off in RF modem section 120 (process step 215).